

CHAPTER 226
LIQUEFIED PETROLEUM GAS

[Prior to 5/23/07, see rules 661—51.100(101) to 661—51.102(101)]

661—226.1(101) General requirements. The provisions of the International Fire Code, Chapter 38, 2006 edition, published by the International Code Council, 5203 Leesburg Pike, Suite 600, Falls Church, VA 22041, and all references contained therein, are hereby adopted by reference as the general requirements for transportation, storage, handling, and use of liquefied petroleum gas, with the following amendments:

Delete section 3801.1 and insert in lieu thereof the following new section:

3801.1 Scope. Storage, handling and transportation of liquefied petroleum gas (LP-gas) and the installation of LP-gas equipment pertinent to systems for such uses shall comply with this chapter, NFPA 54, ANSI Z223.1-2006 National Fuel Gas Code, 2006 edition, and NFPA 58, Liquefied Petroleum Gas Code, 2004 edition, with the following amendments:

Amend NFPA 54, ANSI Z223.1-2006 National Fuel Gas Code, 2006 edition, as follows:

Delete section 7.3.5.2 and insert in lieu thereof the following new section:

7.3.5.2 Gas piping underground, outside a building, shall not be in physical contact with any concrete. Where it is necessary to install piping that will extend through or under an exterior concrete slab for connection to a regulator or other part of the system, before entering a building, the gas piping shall be sleeved. The sleeve shall extend through the concrete and be sealed only at the end extending above grade to prevent the entrance of insects, debris, or moisture. All piping, fittings, and risers shall be protected against corrosion in accordance with NFPA 54, National Fuel Gas Code, 2004 edition, section 5.6.6.

Amend NFPA 58, Liquefied Petroleum Gas Code, 2004 edition, as follows:

Delete section 5.2.3.1 and insert in lieu thereof the following new section:

5.2.3.1 DOT cylinders in stationary service that are filled on site and therefore are not under the jurisdiction of DOT shall be either requalified in accordance with DOT requirements or visually inspected within 12 years of the date of manufacture and every 5 years thereafter, in accordance with 5.2.3.1(A) through 5.2.3.1(C). The effective date for qualification and requalification requirements of this section shall be July 1, 2010.

(A) Any cylinder that fails one or more of the criteria in 5.2.3.1(C) shall not be refilled or continued in service until the condition is corrected.

(B) Personnel shall be trained and qualified to perform inspections. Initial and refresher training shall be in accordance with rule 661—226.4(101).

(C) Visual inspection shall be performed in accordance with the following:

(1) The cylinder is checked for exposure to fire, dents, cuts, digs, gouges, and corrosion according to CGA C-6-2005, Standards for Visual Inspection of Steel Compressed Gas Cylinders, ninth edition, except that paragraph 5.2.1.1(1) of that standard (which requires tare weight verification) shall not be part of the required inspection criteria.

(2) The cylinder protective collar (where utilized) and the foot ring are intact and are firmly attached.

(3) The cylinder is painted or coated to retard corrosion.

(4) The cylinder pressure relief valve indicates no visible damage, corrosion of operating components, or obstructions.

(5) There is no leakage from the cylinder or its appurtenances that is detectable without the use of instruments.

(6) The cylinder is installed on a firm foundation and is not in contact with the soil.

(7) A cylinder that passes the visual examination shall be marked with the month and year of the examination followed by the letter “E” (for example, 10-01E, indicating requalification in October 2001 by the external inspection method) and the requalifier identification number (RIN) in accordance with the requalifying agency’s permit issued by the United States Department of Transportation.

(8) The results of the visual inspection shall be documented, and a record of the inspection shall be retained for a 5-year period or until the cylinder is again requalified, whichever occurs first.

Delete section 6.6.7.1 and insert in lieu thereof the following:

6.6.7.1 Installation of permanent, stationary containers on roofs of buildings shall be prohibited.

Delete section 6.6.7.2.

Delete sections 6.12, 6.12.1, 6.12.2, and 6.12.3.

NOTE: Properties of LP-gases shall be determined in accordance with Appendix B of NFPA 58.

Delete paragraph 6.17.1.2(C) and insert in lieu thereof the following new paragraph:

6.17.1.2(C) Cylinders installed permanently on roofs of buildings shall be prohibited.

Delete section 6.17.11.1, including paragraphs (A) through (F), and insert in lieu thereof the following new section:

6.17.11.1 Cylinders installed permanently on roofs of buildings shall be prohibited.

Delete section 6.17.11.2.

Delete section 7.2.1.1 and insert in lieu thereof the following new section:

7.2.1.1 Transfer operations shall be conducted by qualified personnel meeting the provisions of rule 661—226.4(101).

Delete section 3801.2.

Delete section 3801.3 and insert in lieu thereof the following new section:

3801.3 Construction documents. Where a single container is more than 2,000 gallons (7,570 L) in water capacity or the aggregate capacity of containers is more than 4,000 gallons (15,140 L) in water capacity, the installer shall submit construction documents for such installation to the fire marshal for review and approval. Installation shall not commence until written approval from the fire marshal has been received.

Delete section 3803.1 and insert in lieu thereof the following new section:

3803.1 General. LP-gas equipment shall be installed in accordance with NFPA 54, ANSI Z223.1-2006 National Fuel Gas Code, 2006 edition, and NFPA 58, Liquefied Petroleum Gas Code, 2004 edition, except as otherwise provided in this chapter.

Delete section 3803.2.1.7 and insert in lieu thereof the following new section:

3803.2.1.7 Use for food preparation. Where approved, listed LP-gas commercial food service appliances are allowed to be used for food preparation within restaurants and in attended commercial food-catering operations in accordance with NFPA 54, ANSI Z223.1-2006 National Fuel Gas Code, 2006 edition, the International Mechanical Code, 2006 edition, and NFPA 58, Liquefied Petroleum Gas Code, 2004 edition.

NOTE: The following are deletions from the adoption of the International Fire Code, 2006 edition.

Delete section 3803.3 and insert in lieu thereof the following new section:

3803.3 Location of equipment and piping. Equipment and piping shall not be installed in locations where such equipment and piping are prohibited by NFPA 54, ANSI Z223.1-2006 National Fuel Gas Code, 2006 edition.

Delete section 3805.1 and insert in lieu thereof the following new section:

3805.1 Nonapproved equipment. LP-gas shall not be used for the purpose of operating devices or equipment unless such device or equipment is approved for use with LP-gas in accordance with NFPA 58, Liquefied Petroleum Gas Code, 2004 edition, sections 1.5 through 1.5.3.

Delete section 3806.1 and insert in lieu thereof the following new section:

3806.1 Attendants. Transfer operations shall be conducted by qualified personnel meeting the provisions of rule 661—226.4(101).

Amend sections 308.3.1.1, 3803.2.1.6, 3809.3, and 3809.9 and the exception to section 3809.7 by deleting the phrase “a maximum water capacity of 2.5 gallons” and inserting in lieu thereof the phrase “a maximum water capacity of 2.7 gallons.”

661—226.2(101) Transfer into container. No person shall transfer any liquefied petroleum gas into a container, regardless of the container’s size, if the container has previously been used for the storage of any other product until the container has been thoroughly purged, inspected for contamination, provided with proper appurtenances, and determined suitable for use as a container for liquefied petroleum gas as prescribed in the standards established under rule 661— 226.1(101).

661—226.3(101) Prohibition of certain refrigerants. The distribution, sale or use of refrigerants containing liquefied petroleum gas, as defined in Iowa Code section 101.1, for use in mobile air-conditioning systems is prohibited.

661—226.4(101) Qualifications of personnel.

226.4(1) Persons who transfer liquefied petroleum gas, who are employed to transport liquefied petroleum gas, or whose primary duties fall within the scope of this chapter shall be trained in proper handling procedures.

a. Training shall include both initial training and refresher training.

(1) Initial training shall include participation in a training program and shall include both a written qualification assessment (closed-book test) and a skills assessment, based on the objectives set forth in the recognized training program and the requirements of NFPA 54 National Fuel Gas Code, 2006 edition, NFPA 58 Liquefied Petroleum Gas Code, 2004 edition, and any applicable requirements established in this chapter.

(2) Refresher training shall include both a written qualification assessment (closed-book test) and a hands-on skills assessment based on requirements of NFPA 54 National Fuel Gas Code, 2006 edition, NFPA 58 Liquefied Petroleum Gas Code, 2004 edition, and any applicable requirements established in this chapter.

(3) The written qualification assessment shall be proctored through the training agency providing the refresher training or another qualified party.

(4) The hands-on skills assessment shall be completed by the training agency or another qualified party and shall include a verification of completion that shall be signed by the individual completing the required skills and the skills evaluator.

(5) Refresher training shall be provided at least every three years.

b. All training shall be documented. Documentation shall be maintained by the current employer of the person receiving the training.

226.4(2) Persons who install, service, test, or maintain propane gas utilization equipment, or gas piping systems of which the equipment is a part, or accessories shall be trained in the proper procedures in accordance with applicable codes.

a. Initial training shall include participation in a training program and shall include both a written qualification assessment (closed-book test) and a skills assessment, based on the objectives set forth in the recognized training program and the requirements of NFPA 54 National Fuel Gas Code, 2006 edition, NFPA 58 Liquefied Petroleum Gas Code, 2004 edition, and this chapter.

b. Refresher training shall include both a written qualification assessment (closed-book test) and a hands-on skills assessment based on requirements of NFPA 54 National Fuel Gas Code, 2006 edition, NFPA 58 Liquefied Petroleum Gas Code, 2004 edition, and this chapter.

c. The written qualification assessment shall be proctored through the training agency providing the refresher training or another qualified party.

d. The hands-on skills assessment shall be completed by the training agency or another qualified party and shall include a verification of completion that shall be signed by the individual completing the required skills and the skills evaluator.

e. Refresher training shall be provided at least every three years.

f. All training shall be documented. Documentation shall be maintained by the current employer of the person receiving the training.

226.4(3) Successful completion of the written qualification assessment and hands-on skills assessment shall satisfy the refresher training requirements of subrules 226.4(1) and 226.4(2).

661—226.5(101) Pressure testing.

226.5(1) After assembly, LP-gas piping systems, including hoses, shall be pressure-tested and proven free of leaks as follows:

a. Piping systems having operating pressures greater than 20 psig shall be tested at no less than normal operating pressure in accordance with NFPA 58 Liquefied Petroleum Gas Code, 2004 edition.

b. Piping systems having operating pressures of 20 psig or less and piping within the scope of NFPA 54 National Fuel Gas Code, 2006 edition, shall be tested in accordance with that code.

226.5(2) All LP-gas piping systems having operating pressures of 20 psig or less shall have system and equipment leakage tests performed in accordance with NFPA 54 National Fuel Gas Code, 2006 edition.

226.5(3) Tests shall not be made with flame.

These rules are intended to implement Iowa Code chapter 101.

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CHAPTERS 227 to 230

Reserved